

It is seen clearly from the above Examples and Comparative Examples that, the activity of the traditional catalyst (see Comparative Examples 1 to 5, wherein gold or copper was used as the catalysis promoter) deteriorates rapidly when water is not added during the oxacylation process. As to the catalyst for oxacylation produced in the present invention, whether only tin, or the mixture of tin/gold or tin/copper is used as the promoter, superior catalytic activity deteriorating ratios are obtained when water is not added during the oxacylation process.

Therefore, in the presence of the catalyst produced in this invention, while no water is added into the reactant materials for the oxacylation process, or if only a small amount of water is added in accordance with the requirement of the process, not only can the catalytic activity and life of the catalyst be retained and not deteriorate, but high catalytic activity and high selectivity will be attained. Therefore, the energy consumed and wasted resulting from the addition of water can be avoided, and the economical effect of the oxacylation process can be greatly increased.

What is claimed is:

1. A catalyst for oxacylation, which comprises palladium metal as the main catalyst, tin metal or a mixture of tin and additional metal(s) as the promoter, in combination with an alkali or alkaline earth metal compound, supported on the outer surface of a porous carrier, and being used in the process for producing allyl acetate.
2. The catalyst according to claim 1, which further comprises metal(s) selected from the group consisting of gold, copper, cadmium, bismuth, cerium and a mixture thereof as the additional promoter.
3. The catalyst according to claim 1, wherein the content of said main catalyst,

palladium metal, based on the weight of said porous carrier, is in the range of 0.1 to 5.0 weight %.

4. The catalyst according to claim 3, wherein the content of said main catalyst, palladium metal, based on the weight of said porous carrier, is in the range of 0.3 to 1.5 weight %.
5. The catalyst according to claim 1, wherein the content of said promoter, tin metal, based on the weight of said porous carrier, is in the range of 0.01 to 5.0 weight %.
6. The catalyst according to claim 5, wherein the content of said promoter, tin metal, based on the weight of said porous carrier, is in the range of 0.02 to 1.0 weight %.
7. The catalyst according to claim 2, wherein the total content of said promoter, tin metal and additional metal(s), based on the weight of said porous carrier, is in the range of 0.01 to 5.0% by weight.
8. The catalyst according to claim 7, wherein the total content of said promoter, tin metal additional promoter metal(s), based on the weight of said porous carrier, is in the range of 0.02 to 1.0% by weight.
9. The catalyst according to claim 1, wherein the content of said alkali or alkaline earth metal compound, based on the weight of said porous carrier, is in the range of 1 to 15 weight %.
10. The catalyst according to claim 9, wherein the content of said alkali or alkaline earth metal compound, based on the weight of said porous carrier, is in the range of 4 to 10 weight %.
11. The catalyst according to claims 7 or 8, wherein said additional promoter metal is gold.
12. The catalyst according to claims 7 or 8, wherein said additional promoter metal is copper.
13. The catalyst according to claims 7 or 8, wherein said additional promoter metal is selected from the group consisting of cadmium, bismuth and cerium.

14. The catalyst according to claim 1, wherein said alkali or alkaline earth metal compounds are the hydroxides, acetates, nitrates and bicarbonates of potassium, sodium, cesium, magnesium and barium.
15. The catalyst according to claim 14, wherein said alkali or alkaline earth metal compounds are the hydroxide, acetate, nitrate and bicarbonate of potassium.
16. The catalyst according to claim 1, wherein said porous carrier is selected from the group consisting of alumina, silica gel, silica, active carbon, silicon carbide, diatomaceous earth, pumice and a mixture thereof.
17. The catalyst according to claim 1, wherein said process for producing allyl acetate is carried out through the oxacylation of propylene, acetic acid, oxygen and water in a vapor phase.
18. The catalyst according to claim 17, wherein the content of water is in the range of 0 to 15 volume %, based on total amount of the reacting gases.
19. The catalyst according to claim 18, wherein the content of water is in the range of 0 to 10 volume %, based on total amount of the reacting gases.
20. A method for preparing the catalyst according to claim 1, which comprises: (a) impregnating a porous carrier with a solution containing palladium and promoter metal(s) in oxidative states, then reducing the metals from an oxidative state into metallic state; (b) impregnating said metallic state metals-supporting carrier with a solution of alkali or alkaline earth metal compounds, then drying it.
21. The method according to claim 20, wherein the reduction reaction for reducing the metals from an oxidative state into a metallic state is carried out in a liquid phase, and the reducing agent used is selected from the group consisting of amines, aldehydes and hydrazines.
22. The method according to claim 20, wherein said reduction reaction for reducing the metals from an oxidative state into a metallic state is carried out in a vapor phase, and the reducing agent used is selected from the group consisting of carbon monoxide, hydrogen and alkene.